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Allianz Global Investors Insights

Global View

Beyond the Bitcoin Bubble, the Benefits of Blockchain

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Key takeaways

- Between December 2017 and February 2018, bitcoin's price fell by around half, but this probably isn't the end of the bitcoin bubble
- Bitcoin meets all of the essential criteria for any asset-class bubble, including overtrading, a lack of regulation and the potential for swindles
- Bitcoin has no intrinsic value: it is a claim on nobody – unlike sovereign bonds, equities or paper money – and doesn't generate any income
- We don't view bitcoin as a currency due to its high transaction costs, tremendous price volatility and inability to be a true store of value
- Despite our concerns about bitcoin, its underlying blockchain technology has merit – particularly its ability to reduce financial-transaction costs

The weeks before Christmas 2017 marked the heyday of bitcoin speculators. Bitcoin futures made their trading debut at two of the world's leading options exchanges – the Chicago Board Options Exchange (CBOE) and the Chicago Mercantile Exchange (CME) – and prices in the spot and futures market hit an all-time high on 18 December, closing in on USD 20,000.

Yet soon thereafter, prices plummeted and never recovered: at approximately USD 10,000 at the end of February, one bitcoin is now worth about half of what it was only two months ago.

So is this the end of the hype about bitcoin as the future of global currencies? Probably not yet, since speculation in bitcoin and similar instruments appears set to continue for some time. Yet from our perspective, bitcoin has serious flaws: its trajectory resembles a textbook case of a financial-market bubble, and it is lacking several key qualities that would qualify it as a currency.

From our perspective, bitcoin has serious flaws: it's a textbook financial bubble and can't qualify as a currency

Bitcoin's bubble behaviour

The hyperbolic price movements of bitcoin since its early 2009 inception have been very bubble-like in nature. When one compares bitcoin's five-year price

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momentum (adjusted for inflation) against that of previous asset bubbles, bitcoin dwarfs the runners-up – the Mississippi bubble of 1720 and the Amsterdam Tulip Mania of 1637. And among more recent examples, bitcoin far surpasses the IT bubble of the 1990s and the Japan bubble of the 1980s.

Moreover, bitcoin ticks all of the boxes that we consider to be essential criteria of any asset bubble:

- **"New-era" thinking.** Bitcoin is perceived to be an entirely new kind of currency and a monetary innovation in the internet age.
- **Overtrading.** Trading volumes have increased by almost fivefold in the last five years, according to BIS data.
- **Ultra-easy monetary conditions.** Accommodative policy is still in place globally, despite a series of rate hikes by the US Federal Reserve.
- **A lack of financial regulation.** The "Wild West" bitcoin environment is only gradually being addressed by regulators around the world.
- **The launch of related financial instruments.** New products related to the bubbling asset class are popping up – from CBOE and CME futures contracts to the launch of "ICOs" (initial coin offerings).
- **Rising leverage.** Not only has private-sector leverage increased to record highs globally, but leveraged speculation in bitcoin is increasing.
- **Swindles.** Bitcoin has become the instrument of choice for many criminals, thanks to its ability to exist entirely outside of traditional banking channels.
- **Significant overvaluation.** Many other asset classes are pricey in today's market, but bitcoin's valuation seems to be without peer.

This brings us to a key question: what is the fair value of a bitcoin? In our view, its intrinsic value must be zero: a bitcoin is a claim on nobody – in contrast to, for instance, sovereign bonds, equities or paper money – and it does not generate any income stream. Admittedly, one could make the same argument about gold, but gold has been widely accepted by humankind as a thing of value for more than two-and-a-half thousand years – compared to less than a decade for bitcoin.

In our view, the intrinsic value of a bitcoin must be zero

One could argue that bitcoin's price developments are indicative of a certain amount of overheating in other asset classes:

- The S&P 500 index's cyclically adjusted price-to-earnings ratio is around twice its long-term average.
- Spreads in many high-yield and investment-grade bonds globally are razor-thin.

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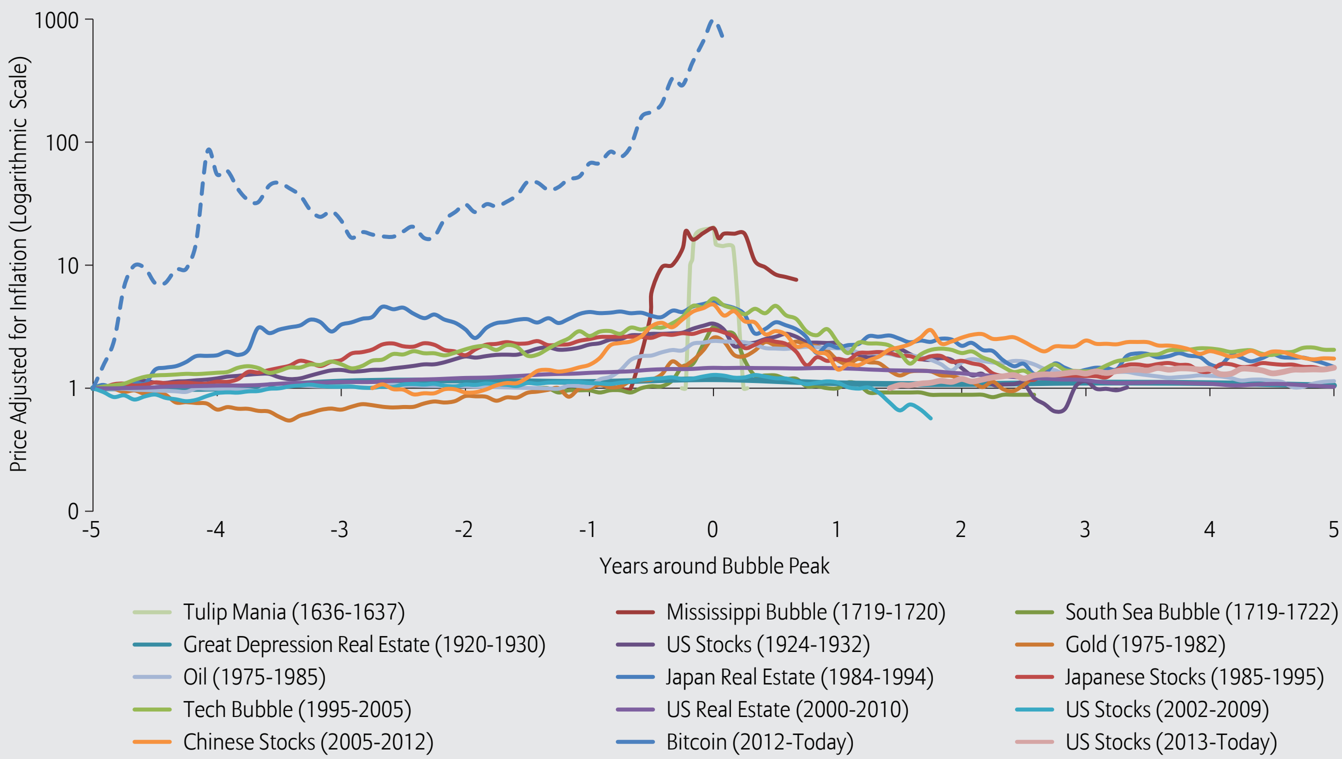
Compared with Other Bubbles, Bitcoin Is almost off the Charts

Five-year price momentum of bitcoin vs. historic asset bubbles; priced monthly; logarithmic scale



Source: AllianzGI; Datastream; Peter Garber (1990), "Famous First Bubbles"; Federal Reserve Economic Data; Robert J. Shiller (2000), Irrational Exuberance; Earl Thompson (2007), "The Tulipmania: Fact or Artifact?" Data as at January 2018.

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Global View

- House prices are significantly overvalued in many markets that were not severely hit by the global financial crisis in the first place – notably Canada, Sweden, Australia and Hong Kong.

Nevertheless, despite the fact that bitcoin is not the only overvalued asset class, it appears to us that bitcoin mania is a textbook-like bubble – and one that is probably just about to burst.

So would the end of the bitcoin bubble matter for investors in conventional asset classes, such as fixed income or equities? We don't believe so. In our view, bitcoin's demise would have few spillover effects on the "real world", since the market for this cryptocurrency is still quite small in size. As a result, we believe that the risks to financial stability stemming from bitcoin are negligible – at least as of today.

The market for bitcoin is quite small, so we believe the risks to financial stability from bitcoin are negligible

Not a currency – and not ESG-friendly

So if bitcoin is flawed enough not to be considered a proper asset class, can it at least serve the purpose of being a currency? We believe the answer is no for several reasons:

- First, given the high cost of conducting transactions in bitcoin, it could only be used for paying big-ticket items.
- Second, given bitcoin's tremendous price volatility, it does not qualify as a numeraire – a commonly accepted benchmark used to assign value to goods and services.
- Third, considering all the arguments we have previously presented, it seems all but impossible to use bitcoin as a store of value.

Moreover, if we consider environmental, social and governance (ESG) factors, bitcoin is certainly not an instrument we favour.

The energy consumption related to bitcoin production in a single year is equivalent to the annual energy consumption of Ireland – a worrisome trend that seems to be rising.

Blockchain has its benefits

Despite our concerns about bitcoin, its underlying blockchain (or distributed-ledger) technology clearly has potential merits – not least of which is blockchain's ability to reduce significantly the costs of verifying transactions and networking. This is prompting a range of financial institutions, including central banks, to explore blockchain more closely and to evaluate practical applications – including conducting financial transactions.

It is this aspect of cryptocurrencies in general – and not the specific cryptocurrency *du jour* – that we as an asset-management firm find to be the most interesting.

Despite our concerns about bitcoin, its underlying blockchain technology clearly has potential merits

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Viewpoint

Big Tech Must Pitch in on Social Infrastructure

Key takeaways

- Internet businesses should be taxed in jurisdictions where their revenue originates
- Internet bandwith as a public good should be auctioned to for-profit businesses to ensure that its benefits are shared with society, rather than privatized by a few ultra-wealthy owners
- If internet companies don't participate in the societal costs of their disruption, the infrastructure and civil society upon which their business models depend will deteriorate

Karl Happe
CIO Insurance Related Strategies

In recent months, some of the world's most successful tech companies have faced an increasing backlash from policymakers and the public. From anger over the alleged spreading of "fake news" during US elections to complaints of unfair competition and tax dodging in Europe, there are growing signs that people are losing patience with big-tech disruptors.

At the heart of some of the criticism of these firms is the fact that their business models depend on a "positive externality" – a resource that they do not own, but that benefits them greatly. In this case, it is the internet itself that companies such as Facebook, Amazon, Netflix and Google have capitalized on so successfully, effectively privatizing a public good.

The FANGs have capitalized on the internet so successfully, they have effectively privatized a public good

To be sure, the FANGs and many other tech firms have brilliantly innovative ideas, but

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Viewpoint

their innovations would be worth next to nothing without the infrastructure that enables them to reach most of the world's population. Imagine Facebook operating on a desert island, with no way to connect to anyone. Not a very compelling business case.

Yet despite being dependent on public infrastructure, these companies haven't contributed a proportionate share of their profits back to society as a whole. Because intellectual property is their primary asset, many of these firms can list their domiciles in far-away, frequently low-tax environments – effectively concentrating their profits away from the societies they depend on for their prosperity.

The societies in which these internet businesses operate are also bearing other costs that stem from these firms' success. Witness the continued hollowing-out of traditional retail businesses, the upheaval in the media and telecommunications sectors, and the upending of advertising and marketing value chains. To be sure, the disruption of companies dependent on old ways of doing business is not always a bad thing. Yet the cost of unwinding these failures – for example, by supporting workers who lost their jobs – rests on the governments who are not getting much help from the high-tech giants.

Society is bearing the costs of the internet firms' success – including supporting workers who lost their jobs

All the while, these firms have proved immensely profitable for a relative handful of venture capitalists, founders and IPO participants. This is adding to the larger issue of income inequality: while much of the world's population struggles to earn more, or has even backslid, a very small sliver has become fantastically rich. To be sure, tech firms alone did not create this problem, but they are certainly not solving it, and growing inequality is one of the biggest contributors to the widespread political polarization that is making modern societies more fragile.

So how do we fix this problem, where a positive externality like the internet is effectively being exploited by a relative few? Here are two proposals:

- First, tax profits in the country or state in which the transaction takes place. We need more tax revenue where the end customer lives – not in the sparsely populated locations that many tech companies claim as their domiciles. Facebook, perhaps sensing which way the winds of public opinion are blowing, recently announced plans to start taxing its revenues in the countries where its users activity generate the firm's profits.
- Second, insist that tech companies that rely on publically provided infrastructure contribute to society's maintenance – beyond merely paying normal taxes. Functioning civil societies create the scalable benefits of their business models.

One practical way to implement the second proposal would be to hold an annual auction for internet-bandwidth access. Some of the proceeds would go to network maintenance, but the excess would pay for other forms of infrastructure these firms depend on: roads for deliveries, legal systems for adjudicating differences and regulations for protecting consumers.

Tech firms that rely on public infrastructure should contribute to society's maintenance – perhaps at an auction for internet-bandwidth access

Not unlike auctions for radio-wave bandwidth, the auctions for internet bandwidth would ensure a more competitive market for search functionality, marketplaces and publishing platforms. And some of the positive externalities of network usage would be returned to the societies that provide them, rather than exclusively privatized.

The auctions would also ensure that there would be at least a chance for competition in areas currently dominated by effective monopolies. Competitors willing to come into the market and contribute more of their profits back to society might be able to disrupt existing players who tried to retain too much for themselves. Legacy companies would clearly retain a huge advantage over new entrants, but at least there would be a mechanism to limit how much they are able to profit from public infrastructure.

In the end, it is critical for the continued stability of our societies that disruptive companies not only provide good ideas that make economies more efficient, but contribute more to the social infrastructure upon which their business models depend.

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Grassroots® Research

Brexit Blues: Survey Shows Rising UK Consumer Concerns

Nicole Papassavvas
Grassroots® Research Analyst

Key takeaways

- Almost half of the respondents to our new Grassroots® survey said they think Brexit will cause the UK economy to deteriorate over the long term
- Brexit is hurting some UK savers: 23% of our December survey respondents they plan to save less than before, up from 14% in July 2016
- Because of Brexit, more than 1/3 of our Grassroots® survey respondents said they expected to reduce their dining, vacation and auto purchases
- Auto sales are an important driver of the UK economy, but they've cooled significantly since their July 2016 post-Brexit high; our research suggests UK autos could remain the weak spot within Europe

The UK's June 2016 decision to leave the European Union caused a significant amount of uncertainty among investors in general, but particularly for those based in the UK. A new survey by our Grassroots® Research team – Allianz Global Investors' proprietary in-house research division – has found that UK residents are growing more concerned about employment, less confident in their household finances and more worried about Brexit hurting the economy over the long term.

The new Grassroots® study on consumer sentiment in the UK was conducted among more than 800 UK residents in December 2017. We were able to compare these results with those from a similar study conducted in July 2016, immediately after the Brexit UK referendum.

Growing fears of long-term economic deterioration

The results of our latest polling indicated no significant change in views regarding the short-term economic outlook for the UK: 35 per cent of respondents believe the UK economy will deteriorate slightly over the next six months, while 22 per cent believe it will remain stable. These percentages are similar to the ones we uncovered in July 2016.

However, the long-term picture is different: 45 per cent of respondents now believe Brexit will cause the UK's economy to deteriorate slightly or significantly in the long term – an increase of 7 percentage points from July 2016.

45% of respondents believe Brexit will cause the UK's economy to deteriorate in the long term

An increasing toll on household finances and savings

Growing concerns about the UK economy can be seen in the responses to our questions about household finances and consumption:

- Forty-nine per cent of respondents rated their current household financial situations stable – down from 58 per cent in July 2016.
- Thirty-nine per cent said Brexit will have a negative effect on their household finances – up from 34 per cent in July 2016.
- Twenty-three per cent said Brexit is prompting them to save slightly or significantly less, compared with 14 per cent in July 2016.

Employment worries could mean reduced consumption

Our latest survey also revealed that UK residents may be growing increasingly anxious about employment. In December 2017, 56 per cent said they were concerned about a negative change in their employment status – such as a layoff or pay cut – occurring over the next six months. This was an 8-percentage-point increase over the numbers we saw in July 2016.

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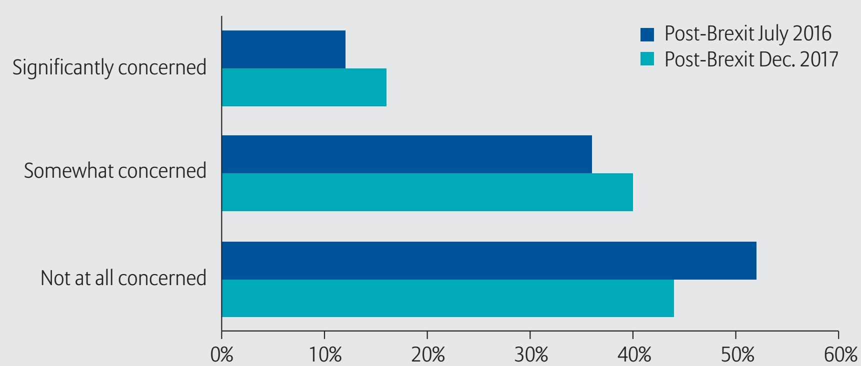
Fears about Employment Have Increased Post-Brexit

Question: Do you have any concerns that your employment status might change negatively (eg, layoff, pay cut, etc.) in the next six months?



Source: Grassroots® Research. Data as at December 2017.

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Grassroots® Research

Personal spending habits show a shift

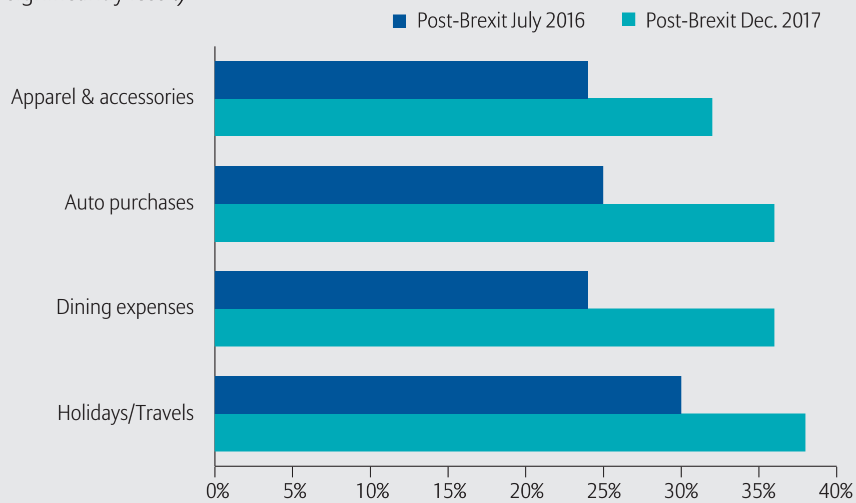
Our December 2017 respondents told us that because of the Brexit decision, they plan to spend slightly or significantly less on consumption overall: more than a third of respondents said they expected to reduce their dining, vacation and auto purchases, and slightly under a third plan to spend less on apparel and accessories.

Investment implication: Growing concerns about the auto industry

Because the auto industry is a particularly important driver for the UK economy, it is watched closely by our investment professionals – and the latest Grassroots® findings indicate some cause for concern. Thirty-six per cent of our December respondents told us they expect to spend less on automobile purchases – up from 25 per cent in July 2016.

Brexit Leading to Lower Spending on Clothes, Autos, Vacations and Dining

Question: How has the Brexit decision affected your personal spending habits for the following? (Chart shows percentage responding "I will spend slightly less/ significantly less".)



Source: Grassroots® Research. Data as at December 2017.

36% of December 2017 respondents said they expect to spend less on automobile purchases – up from 25% in July 2016

Ralf Stromeyer, Director of Research for our Frankfurt team, said that UK auto-industry managers have confirmed this outcome from our survey. "July 2016 was a high point for auto sales in the UK, particularly compared with sales in other European countries.

Since then, however, the UK market has cooled significantly, particularly since auto purchases are financed with large amounts of debt. Managers we have spoken with expect UK autos to remain the weak spot within Europe."

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